

## **Prelim Bits 13-09-2019**

### **National Animal Disease Control Programme (NADCP)**

- **NADCP** was launched recently, aimed at eradicating 'Foot and Mouth disease' (**FMD**) and 'Brucellosis' in livestock.

- India has the world's largest livestock population of 125-crore plus heads but,

1. The cattle productivity is low and animal diseases are a major concern.
2. The diseases have resulted in some overseas markets being shut to Indian dairy and meat products.
3. It prevented the industry from realising its income potential.

- **NADCP** programme aims to,

1. Vaccinate over 500 million livestock heads, including cattle, buffalo, sheep, goats and pigs against FMD.
2. Vaccinate over 36 million female bovine calves annually against Brucellosis.
3. The programme has received 100% funding from the Centre, for 5 years until 2024.
4. The NADCP aims to control these 2 diseases by 2025 and to eradicate them by 2030.

- **FMD (Foot and Mouth disease)**

1. It is a highly infectious viral disease of livestock.
2. It is generally not fatal in adult animals but leaves them severely weakened.
3. It results in a drastically reduced production of milk.
4. Therefore, it financially ruinous for dairy farmers.
5. Infected animals get a fever, sores in their mouth, on their teats, and between their hooves.
6. It spreads through excretions and secretions, infected animals also exhale the virus.
7. It is endemic in several parts of Asia, most of Africa, and the Middle East.
8. Australia, New Zealand, Indonesia, Central, North and Latin America, continental Western Europe are **FMD-free**.

- **Brucellosis**

1. This is a zoonotic disease that is endemic in most parts of the country.

2. It causes early abortions in animals and prevents the addition of new calves to the animal population.
3. **WHO** recommends the vaccination of cattle and in some cases, testing and culling to control the disease.

## **K2-18b**

- '**K2-18b**' is an 'exoplanet' discovered in 2015 by NASA's 'Kepler spacecraft'.
- Now, scientists have found signatures of 'Water vapour' in the atmosphere of **K2-18b**.
- This makes it the only planet outside Solar system with temperatures and water vapour that can potentially support life.
- It is about 110 light years from Earth, and 8 times the mass of Earth, orbits a star.
- It resides in a habitable zone, the region around a star in which liquid water could potentially pool on surface of a rocky planet.
- **K2-18b** is not 'Earth 2.0' as it is significantly heavier and has a different atmospheric composition.
- The researchers used data from the 'Hubble Space Telescope' and analysed the **K2-18b**'s atmosphere.
- The results revealed the molecular signature of water vapour, indicating, presence of hydrogen and helium in its atmosphere.

## **Salmonella**

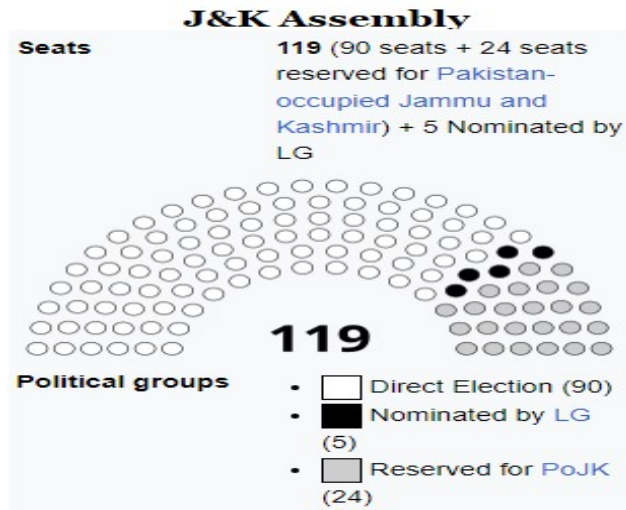
- Indian **MDH** sambar masala were recalled from retail stores in **US** after tests by the **US-FDA** showed positive for 'Salmonella'.
  - **MDH** is a top Indian cooking brand which is selling various spice mixes that are key to Indian cooking.
  - **Salmonella** is a group of '**bacteria**' that can cause food-borne illnesses known as **Salmonellosis**.
  - It is commonly found in the intestines of humans and animals.
  - It can also be found on raw meats, poultry, eggs and in unpasteurised milk.
  - It causes an illness if 'live Salmonella bacteria' enters the body.
  - The bacteria can attach to the cells lining the intestines where they produce toxins and attack the intestinal cells.
  - According to estimates by the **US** 'Centers for Disease Control and Prevention' (**CDC**),
1. Salmonella causes 1.2 million illnesses and about 450 deaths in the US every year.
  2. In a majority of these cases, food is the source of the illness.
    - Individuals who develop salmonellosis may show symptoms such as nausea,

diarrhoea, fever and abdominal cramps.

- Usually, the illness lasts for 4-7 days, and most people recover without treatment.
- In some cases the diarrhoea is severe and there is risk of it spreading from the intestines to other parts of the body.
- **WHO** identifies 'Salmonella' as one of four key global causes of diarrhoeal diseases.
- 'Salmonella bacteria' are widely distributed in domestic and wild animals.
- They are prevalent in food animals such as poultry, pigs, and cattle, as well as in pets, including cats, dogs and birds.
- 'Salmonellosis' in humans is generally contracted through the consumption of contaminated food of animal origin.
- It also pass through other foods, including green vegetables contaminated by manure.
- Person-to-person transmission can also occur through the faecal-oral route.

### **Pangong Tso lake**

- Recently, Indian and Chinese soldiers had a heated exchange in Ladakh near the Pangong Tso lake.
- The exchange happened after Chinese Army personnel objected to patrolling by Indian soldiers.
- Differing perceptions about the 'Line of Actual Control' (**LAC**) was responsible for the incident.
- In the Ladakhi language, 'Pangong' means 'Extensive concavity', and 'Tso' is 'lake' in Tibetan.
- Pangong Tso is a long narrow, deep, landlocked lake situated at a height of more than 14,000 ft in the Ladakh Himalayas.
- The brackish water lake freezes over in winter, and becomes ideal for ice skating and polo.
- The **LAC** cuts through the lake, but India and China do not agree on its exact location.
- A 45 km-long western portion of the lake is in Indian control, while the rest is under China's control.
- Most of the clashes between the two armies occur in the disputed portion of the lake.
- It lies in the path of the "Chushul", one of the main approaches that China can use for an offensive into Indian-held territory.



- Indian assessments show that a major Chinese offensive, if it comes, will flow across both the north and south of the lake.
- Over the years, the Chinese have built motorable roads along their banks of the Pangong Tso.
- The difference in perception over where the **LAC** lies on the northern bank of the lake, makes this contested terrain.
- On the water, the Chinese had a major advantage earlier, but India purchased better high-speed boats.
- This leads to a quicker and more aggressive response and the induction of boats has ostensibly provoked the China.
- China started responding by increasing the number of transgressions in this area in recent years.

**Source: PIB, The Indian Express**